



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/545,752	04/10/2000	David W. Moore	ST9-99-122	2720

21552 7590 06/18/2002

MADSON & METCALF  
GATEWAY TOWER WEST  
SUITE 900  
15 WEST SOUTH TEMPLE  
SALT LAKE CITY, UT 84101

EXAMINER

NGUYEN, TAM V

ART UNIT

PAPER NUMBER

2172

DATE MAILED: 06/18/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/545,752

Applicant(s)

MOORE, DAVID W.

Examiner

Tam V Nguyen

Art Unit

2172

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 10 April 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

1. Claims 1-31 are pending in this action. Claims 1-31 are presented for examination. This action is in response to the filing date 04/10/2000.

### ***Information Disclosure Statement***

2. The references cited in the IDS, PTO-1449, Paper No. 2, have been considered.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1-31 are rejected under 35 U.S.C. 102(e) as being anticipated by Ofek et al. (US 6397308B1).

With respect to claim 1, an apparatus for recovering a failed database data set, the apparatus comprising: a memory device storing executable modules, (see fig. 5) the modules comprising: a recovery utility having, a backup copy restore utility configured to read and restore a backup copy of the database data set, (col. 6, lines 23-29) a change accumulation manager configured to read a change accumulation data set in parallel with the read and restore of the backup copy to derive detail records, (col. 29, lines 10-32) and an image copy restore utility configured to apply the detail records to the backup copy during the read and restore of the backup copy to thereby create a restored database data set, (col. 24, lines 54-col. 25, lines 65 and col. 29, lines 10-32).

As claim 2, the apparatus of claim 1 wherein the backup copy restore utility is further configured to read and restore a plurality of backup copies in parallel, (col. 29, lines 10-32)

As claim 3, the apparatus of claim 1 wherein the change accumulation manager is further configured to read in parallel a plurality of change accumulation data sets to derive detail records, (col. 29, lines 10-32).

As claim 4, the apparatus of claim 1 wherein the recovery utility further comprises a merge end point utility configured to determine the merge end point reflective of a separation of detail and spill records in the log, (col. 27, lines 12-36).

As claim 5, the apparatus of claim 1 wherein the recovery utility further comprises a log manager configured to read a log to derive updates subsequent to a merge end point, (col. 27, lines 12-col. 28, lines 68) and a database update manager configured to apply the updates to the restored database data set, (col. 27, lines 12-col. 28, lines 68).

As claim 6, the apparatus of claim 5 wherein the log manager is further configured to read a plurality of logs in parallel to derive updates subsequent to the merge end point, (col. 27, lines 12-col. 28, lines 68).

As claim 7, the apparatus of claim 5 wherein the database update manager is further configured to apply the updates after the backup copy is restored, (col. 27, lines 12-col. 28, lines 68).

As claim 8, the apparatus of claim 1 further comprising a virtual memory and wherein the change accumulation manager is further configured to store at least a portion of the detail records in the virtual memory, (col. 39, lines 26-36).

As claim 9, the apparatus of claim 1 wherein the backup copy restore utility is configured to send a query to the change accumulation manager for a detail record associated with the database data set during the read and restore of the backup copy, (col. 29, lines 10-68).

As claim 10, the apparatus of claim 9 wherein the change accumulation manager is configured to save the query if the detail record has not yet been read by the change accumulation manager and further configured to send the detail record to the image copy restore process if the detail record has been read by the change accumulation manager, (col. 29, lines 10-68).

With respect to 11, a method for recovering a failed database data set, the method comprising: reading and restoring a backup copy of the database data set, (col. 29, lines 10-68); reading a change accumulation data set in parallel with the reading and restoring of the backup copy to derive detail records associated with the database data set, (col. 29, lines 10-68); and applying the detail records to the backup copy during the reading and restoring of the backup copy to thereby create a restored database data set, (col. 29, lines 10-68).

As claim 12, the method of claim 11 further comprising reading and restoring a plurality of backup copies in parallel, wherein the backup copies are associated with corresponding failed database data sets, (col. 29, lines 10-32).

As claim 13, the method of claim 11 further comprising reading a plurality of change accumulation data sets in parallel to derive detail records, (col. 29, lines 10-32).

As claim 14, the method of claim 11 further comprising reading a log to derive updates subsequent to a merge end point and applying the updates to the restored database data set, (col. 27, lines 12-col. 28, lines 68).

As claim 15, the method of claim 14 wherein reading the log and applying the updates are executed after restoring the backup copy, (col. 27, lines 12-col. 28, lines 68).

As claim 16, the method of claim 11 further comprising reading a plurality of logs in parallel to derive updates subsequent to the merge end point and applying the updates to the restored database data set, (col. 27, lines 12-col. 28, lines 68).

As claim 17, the method of claim 11 further comprising determining the merge end point, wherein the merge end point is reflective of a separation of detail and spill records in the log, (col. 27, lines 12-col. 28, lines 68).

As claim 18, the method of claim 11 further comprising storing at least a portion of the detail records in a virtual memory, (col. 39, lines 26-36).

As claim 19, the method of claim 11 further comprising generating a query to prompt for a detail record associated with the database data set, (col. 29, lines 10-68).

As claim 20, the method of claim 19 further comprising saving the query if the detail record has not yet been read and responding to the query by applying the detail record to the backup copy if the detail record has been read, (col. 29, lines 10-68).

With respect to 21, a computer readable medium having stored thereon computer executable instructions for performing a method for recovering a failed database data, the method comprising: reading and restoring a backup copy of the database data set, (col. 29, lines 10-32); reading a change accumulation data set in parallel with the reading and restoring of the backup copy to derive detail records associated with the database data set, (col. 29, lines 10-32); and applying the detail records to the backup copy simultaneously during the reading and restoring of the backup copy to thereby create a restored database data set, (col. 29, lines 10-32).

As claim 23, the computer readable medium of claim 22 wherein the method further comprises reading and restoring a plurality of backup copies in parallel, wherein the backup copies are associated with corresponding failed database data sets, (col. 29, lines 10-32).

Re claim 24, the computer readable medium of claim 22 wherein the method further comprises reading a plurality of change accumulation data sets in parallel to derive detail records, (col. 29, lines 10-32).

As claim 25, the computer readable medium of claim 22 wherein the method further comprises reading a log to derive updates subsequent to a merge end point and applying the updates to the restored database data set, (col. 27, lines 12-col. 28, lines 68).

As claim 26, the computer readable medium of claim 25 wherein reading the log and applying the updates are executed after restoring the backup copy, (col. 27, lines 12-col. 28, lines 68).

As claim 27, the computer readable medium of claim 22 wherein the method further comprises reading a plurality of logs in parallel to derive updates subsequent to the merge end point and applying the updates to the restored database data set, (col. 27, lines 12-36).

As claim 28, the computer readable medium of claim 22 wherein the method further comprises determining the merge end point, wherein the merge end point is reflective of a separation of detail and spill records in the log, (col. 27, lines 12-36).

As claim 29, the computer readable medium of claim 22 wherein the method further comprises storing at least a portion of the detail records in a virtual memory, (col. 39, lines 26-36).

As claim 30, the computer readable medium of claim 22 wherein the method further comprises generating a query to prompt for a detail record associated with the database data set, (col. 29, lines 10-68).

As claim 31, the computer readable medium of claim 30 wherein the method further comprises saving the query if the detail record has not yet been read and responding to the query by applying the detail record to the backup copy if the detail record has been read, (col. 29, lines 10-68).

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Halt et al. (US 6343301B1) shows method and system for collecting data for updating a geographic database.

Anderson et al. (US 6052692) shows method and system for managing image related events without comprising image processing.

Pham et al. (US 6282535B1) shows digital signaturing method and system for wrapping multiple files into a container for open network transport and for burning onto cd-rom.

### **Contact Information**

**6. Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tam V Nguyen whose telephone number is (703) 305-3735. The examiner can normally be reached on 7:30AM-5:00PM.**


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Yen Vu can be reached on (703) 305-4393. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for formal communications and (703) 746-7240 for informal communications.

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, Virginia 22202. Fourth Floor (Receptionist).

**7. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.**

TV:tv

06/11/02



**JEAN M. CORRIELUS  
PRIMARY EXAMINER**